



Bradley Cavallo, *Fishery Biologist, Senior Consultant*

Education and Training

M.S. Aquatic Ecology,
University of Montana-
Missoula. 1997.

B.S. Wildlife and
Fisheries Biology,
University of California-
Davis. 1994.

Employment History

Senior Consultant,
Fisheries Scientist,
Cramer Fish Sciences.
Auburn, California.
2006–present.

*Senior Environmental
Scientist,* California
Department of Water
Resources.
Sacramento, California.
2003–2006.

*Environmental
Scientist,* California
Department of Water
Resources.
Sacramento, California.
1999–2003.

Brad is an experienced project and team leader, a diligent communicator, and a resourceful problem-solver with more than 10 years experience. He earned a Master of Science in Aquatic Ecology from University of Missoula (1997), a Bachelor of Science in Wildlife and Fisheries Biology from University of California at Davis (1994), and has since authored several dozen fishery reports, published papers and presentations. Brad possesses expert knowledge of regulated rivers, hydrogeology, fluvial geomorphology, floodplain-riparian ecology, suitable fish habitat, and critical evaluation of fish passage. He excels especially in high-level data analysis including simulation modeling, multivariate statistics, bootstrapping, generalized linear models and non-parametric statistics. Development, application and evaluation of quantitative models for assessing aquatic habitats and fish population dynamics are especially strong skills. Recent related projects include: 1) spring run Chinook life cycle model for evaluation of fish passage trap and haul program upstream of Oroville Facilities on the Feather River (CDWR), 2) temperature and discharge model effects assessment for alternative Oroville Facility operations and modification scenarios required by FERC re-licensing process (CDWR), 3) winter-run life cycle model development for use in evaluating alternative to Delta Cross Channel operations and long-term effects of the proposed North-of-Delta-Offstream-Storage project (Metropolitan Water District, CDWR), and 4) probabilistic simulation model for delta salmonid migration rules (State Water Contractors).

Brad has worked on numerous fisheries projects throughout the Central Valley including the Sacramento-San Joaquin Delta. Brad is expert in all sampling methodologies for fishes, water quality, invertebrates, the evaluation of habitat availability and quality among aquatic vertebrates; including development and application of techniques for assessing aquatic habitats and fish population dynamics. As a specific example, Brad acted as lead scientist for research programs assessing environmental impact of State Water Project operations on salmon and



Fisheries Biologist,
California Department
of Fish and Game.
Stockton, California.
1998–1999.

Scientific Aide,
California Department
of Fish and Game
Rancho. Cordova,
California. 1997–1999.

*Graduate Research
Assistant*, Flathead
Lake Biological
Station. Polson,
Montana. 1994–1997.

steelhead in the Feather River, Sacramento River and the Sacramento-San Joaquin Delta. In this project Brad was responsible for designing research elements, directing field work, analyzing data, and summarizing research findings in reports and presentations. Brad also has extensive training and experience with State and Federal environmental regulatory requirements including programs and policies relating to water quality and fish and wildlife resources.

Through his outstanding work Brad has established strong working relationships and positive rapport with resource agency staff. In September 2007, Brad was elected president and currently serves as president of the American Fisheries Society, California-Nevada Chapter.

Selected Publications and Reports

Cavallo, B., P. Bergman, C. Turner, and J. Merz. 2009. A simulation tool for integrating juvenile salmon migration and mortality data for improved understanding and management of the Sacramento-San Joaquin Delta. Submitted for peer review.

Hamilton, S., D. Murphy, J. Merz and B. Cavallo. 2009. A Quantitative, Multifactor Evaluation of Potential Causes of the Decline of the Delta Smelt. Submitted for peer review.

Cavallo, B., J. Merz, P. Bergman, and C. Turner. 2009. Review of delta smelt and longfin smelt monitoring program at Contra Costa and Pittsburg Power Plants. Cramer Fish Sciences Technical Report, available <http://www.fishsciences.net/reports/index.php>

Cavallo, B., R. Brown and D. Lee. 2009. Hatchery and Genetics Management Plan for Feather River Hatchery Spring-run Chinook Program. In review.

Gray, A., B. Cavallo, C. Watry, and J. Montgomery. 2009. Rotary Screw Trapping Operational Protocol: A Detailed Protocol for Rotary Screw Trapping Field Operations for the Stanislaus and Merced Rivers. Cramer Fish Sciences Technical Report, available <http://www.fishsciences.net/reports/index.php>

Cavallo, B. and R. Kurth. 2009. Steelhead (*Oncorhynchus Mykiss*) in a large, regulated tributary of the Sacramento River. In prep.

DWR. 2006. Draft Biological Assessment for Federally Listed Anadromous Fishes, Oroville Facilities Relicensing, FERC Project No. 2100. May 2006.

SP-F9 Final Report: The Effects of the Feather River Hatchery on



Naturally Spawning Salmonids. November 2004.

http://orovillereicensing.water.ca.gov/wg-reports_envir.html

SP-F10 Task 3A Final Report: Distribution and Habitat use of Juvenile Steelhead and Other Fishes of the Lower Feather River. April 2004. http://orovillereicensing.water.ca.gov/wg-reports_envir.html

SP-F10 Task 3B: Growth Investigations of Wild and Hatchery Steelhead in the Lower Feather River. April 2004. http://orovillereicensing.water.ca.gov/wg-reports_envir.html

SP-F16 Phase 2 Report: Evaluation of Project Effects on Instream Flows and Fish Habitat. April 2004. http://orovillereicensing.water.ca.gov/wg-reports_envir.html

Seesholtz, A., B. Cavallo and others. 2003. Lower Feather River juvenile fish communities: distribution, emigration patterns, and association with environmental variables. American Fisheries Society Symposium 39: 141-166.

DWR. 2002. Distribution of fishes in the lower Feather River in relation to season and temperature, 1997-2001. DWR, Division of Environmental Services Technical Report.

Cavallo, B.J. 1999. Modeling survival and testing hypothesis for adult striped bass using program MARK. California Department of Fish and Game Draft Technical Report.

Cavallo, B.J. and C.A. Frissell. 1997. Floodplain habitat heterogeneity and the distribution, abundance, and behavior of fishes and amphibians in the Middle Fork Flathead River basin, Montana. University of Montana, Masters Thesis.

Cavallo, B.J. and C.A. Frissell. 1996. Fishes, toads and natural floodplains: species distribution in diverse and thermally complex aquatic habitats. Intermountain Journal of Sciences 2: 27.

Cavallo, B.J. and M. Gard. 1994. Effects of flow regime on abundance of native fishes in lower Putah Creek. UC Davis, Department of Wildlife and Fisheries Biology File Report.

Professional Presentations

IEP Modeling Workshop, May 2009

“Fish Simulation Models for Evaluating Water Project Operations and Habitat Enhancements”

CALFED Science Conference, October 2008



“Central Valley Salmon Hatcheries: Fish factories or tools for ESA recovery?”

3rd Annual Spring-run Chinook Salmon Symposium, July 2008

“Managing hatchery salmon and regulated rivers to protect and restore spring run Chinook”

Interagency Ecological Program Annual meeting, February 2008

“The IOS Salmon Model: An Interactive “Blackboard” for Managers Evaluating Alternative Facilities, Operations and Enhancement Actions”

American Fisheries Society National Meeting, September 2007

“Segregation Weirs: Potential contribution to restoration of Central Valley spring run Chinook Salmon”

American Fisheries Society: Cal-Neva Chapter, March 2006

“Feather River Spring Run Chinook Salmon: Scourge or Salvation of the Central Valley ESU?”

CALFED Science Conference, October 2004

“Steelhead Abundance and Rearing Habits in a Regulated, Hatchery Influenced Central Valley River”

CALFED Adaptive Management Workshop, March 2002

“Experimental Flow Manipulations” (topic presenter and discussion leader)